

THE 2017 SPACE RESOURCES ROUNDTABLE AND NEW SPACE RESOURCES GRADUATE PROGRAM AT COLORADO SCHOOL OF MINES. A. Abbud-Madrid, Colorado School of Mines, 1310 Maple St., Golden, CO 80401, aabbudma@mines.edu.

For the past eighteen years, the Space Resources Roundtable (SRR) has brought together interested individuals from the space exploration community, the mining and minerals industries, and the financial sector to discuss issues related to the In-Situ Resource Utilization (ISRU) of lunar, asteroidal, and martian resources.

The SRR serves as a communications mechanism between the wide range of people who are and should be involved in a multiplicity of aspects dealing with space resource development. These include fields such as: exploration, mineral extraction, refining, manufacturing, infrastructure development, space transportation, and a host of other technical areas that play an important role in the space resources field. In addition, participation has also included individuals and companies who are developing markets that may be served by space resources products, such as space industrialization, transportation, tourism, space power, and terrestrial uses, as well as from the financial, legal, and entrepreneurial aspects of resource development. In particular, the last five years have seen an increased participation from the private space commercial sector, with companies interested on exploiting the resources from the Moon and asteroids.

In May 2017, the SRR partnered with the Planetary and Terrestrial Mining Sciences Symposium (PTMSS) for the eighth consecutive year and held their joint meeting on May 1-3 in conjunction with the Canadian Institute of Mining (CIM) 2017 Convention in Montreal, Quebec, Canada. A total of 26 papers were presented on a variety of topics, including space mining, resource extraction, construction and fabrication, legal and policy issues, and conducting business in space. This last topic predominantly included presentations on business opportunities for robotic exploration, mining, and propellant production on the Moon. The LEAG contributed with a presentation on the economic importance of lunar resources. The Moon was also the focus of other talks on the extraction of lunar volatiles, ISRU manufacturing and fabrication, and regolith processing technologies.

In other developments in space resources, the Colorado School of Mines (CSM) announced a first-of-its-kind graduate program on this field. This multi-disciplinary initiative, which is expected to launch in the Fall of 2018, will offer Post-Baccalaureate certificates and Master of Science and Ph.D. degrees. The proposed

program will focus on developing core knowledge and gaining design practices in systems for exploration, extraction, and use of resources in the Solar System. The launch of an educational program of this kind is another indication of the growing interest in this field. This is being driven primarily by an awareness, from space agencies and the private sector, that further development of space travel will be enabled through extraction of materials and production of propellants in space for more affordable and flexible transportation, facilities construction, and life support.